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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,056	10/09/2003	Robert Gordon Ernest Holloway	36657-00320	8185

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EXAMINER

BARNES, CRYSTAL J

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/682,056

Applicant(s)

HOLLOWAY ET AL.

Examiner

Crystal J. Barnes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 20, 24, 25, 32-34 and 36 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) 1-11, 20, 24, 25, 32-34 and 36 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20031009.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The following is an initial Office Action upon examination of the above-identified application on the merits. Claims 1-11, 20, 24, 25, 32-34 and 36 are pending in this application.

Priority

2. Applicant has complied with the conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 09 October 2003 is being considered by the examiner.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-5, 8, 11, 20, 32-34 and 36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 9, 18-20, 22 and 24 of USPN 6,711,455 B1 to Holloway et al. Instant application claims 1-5, 8, 11, 20, 32-34 and 36 define an obvious variation of the invention claimed in USPN 6,711,455 B1 to Holloway et al.

6. Claim 1 of USPN 6,711,455 B1 to Holloway et al. contains every element of claims 1, 2 and 11 of the instant application and as such anticipates claims 1, 2 and 11 of the instant application.

7. Claim 2 of USPN 6,711,455 B1 to Holloway et al. contains every element of claim 4 of the instant application and as such anticipates claim 4 of the instant application.

8. Claim 3 of USPN 6,711,455 B1 to Holloway et al. contains every element of claim 5 of the instant application and as such anticipates claim 5 of the instant application.

9. Claim 9 of USPN 6,711,455 B1 to Holloway et al. contains every element of claim 20 of the instant application and as such anticipates claim 20 of the instant application.

10. Claim 18 of USPN 6,711,455 B1 to Holloway et al. contains every element of claims 8 and 32-34 of the instant application and as such anticipates claims 8 and 32-34 of the instant application.

11. Claim 19 of USPN 6,711,455 B1 to Holloway et al. contains every element of claim 36 of the instant application and as such anticipates claim 36 of the instant application.

12. Claims 1 and 18-20, 22, 24 of USPN 6,711,455 B1 to Holloway et al. contains every element of claim 3 of the instant application and as such anticipates claim 3 of the instant application.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-11, 20, 24, 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,353,770 to Ramsey et al. in view of logical reasoning.

As per claim 1 wherein a method for custom fitting an article to a human being comprising the steps of defining a first set of human body dimensions [easily ascertainable critical information] to be reported by the human being [customer]; defining a second set of human body dimensions [other critical dimensions] to be inferred from said first set of human body dimensions [easily ascertainable critical information]; providing a first mathematical model [model] relating said second set of human body dimensions [other critical dimensions] to said first set of human body dimensions [easily ascertainable critical information], wherein said mathematical model [model] has been generated by statistical analysis [statistical methodology] of a human anthropometrics [anthropometricians] database [storage means]; obtaining a first set of values of said first set of body dimensions [easily ascertainable critical information] by report of the human being [customer]; computing a second set of values of said second set of human body dimensions [other critical dimensions] from said first set of values of said first set of human body dimensions [easily ascertainable critical information] by using said first

mathematical model [model]; defining a set of article dimensions [garment dimensions]; providing a second mathematical model [model] relating said article dimensions [garment dimensions] to said first set of human body dimensions [easily ascertainable critical information] and said second set of human body dimensions [other critical dimensions]; computing a third set of values of said set of article dimensions [garment dimensions] from said first set of values of said first set of human body dimensions [easily ascertainable critical information] and said second set of values of said second set of human body dimensions [other critical dimensions] by using said second mathematical model [model]; the Ramsey et al. discloses providing a system for obtaining information from the customer alone, without assistance from another person, which will provide some of the critical fit dimension or other information sufficient to enable the calculation of other critical fit dimensions (see column 4 lines 32-36). Computer storage means 12 can be used to store information relating to rules for estimating at least one critical dimension which cannot easily be determined by a customer without assistance (see column 4 lines 56-61). The preferred model is based upon a statistical methodology commonly referred to as Design of Experiments (see column 5 lines 15-27). The preferred model begins with dimensions which can easily be determined and

reported by the customer (see column 5 lines 28-29). Once all critical dimensions are known, pattern data can be derived (see column 7 lines 23-29). Once the controller verifies that the individual is within the design parameters, the rules are applied to create the estimated critical dimensions. Then, the controller preferably uses the estimated and actual critical dimensions to determine the pattern data. (See column 8 lines 8-12).

As per claim 2 wherein said first set of human body dimensions [easily ascertainable dimensions] comprises one or more dimensions [dimensions] selected from the group consisting of waist [waist], inseam [inseam], height [height], weight [weight], shoe size [shoe size], seat shape, jacket size, shirt neck size, and shirt sleeve length; the Ramsey et al. reference discloses a unique predictive fitting model takes characteristics, such as weight, height, waist, inseam, and shoe size which are reported by the customer, and uses them to predict other critical dimensions necessary to producing properly fitting garments (see columns 4-5 lines 66-6).

As per claim 3, the rejection of claim 2 is incorporated and further claim 3 contains limitations recited in claim 2; therefore claim 3 is rejected under the same rationale as claim 2.

As per claim 4 wherein said second set of human body dimensions [other critical dimensions] comprises one or more dimensions selected from the group consisting of seat [seat] and outseam [outseam], the Ramsey et al. reference discloses the preferred model includes rules for estimating dimensions such as seat, crotch height, and outseam, and for verifying reported dimensions such as waist and inseam (see column 5 lines 41-45).

As per claim 5 the rejection of claim 4 is incorporated and further claim 5 contains limitations recited in claim 4; therefore claim 5 is rejected under the same rationale as claim 4.

As per claim 6 wherein said human being [customer] is male [his], the Ramsey et al. reference discloses while a customer ordering trousers typically knows his or her height, weight, and waist size, they probably do not know their foot length (see column 5 lines 51-53).

As per claim 7, the rejection of claim 6 is incorporated and further claim 7 contains limitations recited in claim 6; therefore claim 7 is rejected under the same rationale as claim 6.

As per claim 8 wherein said article is a garment [garment], the Ramsey et al. reference discloses the process begins preferably when the customer selects a particular garment to be produced (see column 7 lines 51-52).

As per claim 9 wherein said article is selected from the group consisting of a pair of pants [trousers], a pair of jeans, a sweater, a skirt, a dress, a shirt [shirt], a blouse, a vest, a jacket [jacket], a coat, a pair of knickers, a pair of leggings, a jersey, a pair of shorts, a leotard, a pair of underwear, a hat, a cap, and a swimming or bathing suit; the Ramsey et al. reference discloses the critical dimensions for trousers are waist, hips, rise, inseam, crotch height, and outseam (see column 4 lines 64-66). For shirts or jackets, the critical information could include height, weight, waist, shoe size, and collar size (see column 7 lines 57-61).

As per claim 10, the rejection of claim 9 is incorporated and further claim 10 contains limitations recited in claim 9; therefore claim 10 is rejected under the same rationale as claim 9.

As per claim 11 wherein said first mathematical model [model] comprises a linear model [linear equation], the Ramsey et al. reference discloses it would be possible to modify the model to use foot size directly, rather than shoe size, by

converting shoe size into foot length using the linear equation (see column 5 lines 55-60).

As per claim 20 comprising the additional steps of defining a set of consumer preferences, obtaining the values of said consumer preferences by report of the human being, adjusting said second mathematical model on the basis of said consumer preferences; the Ramsey et al. reference discloses such grading programs can also compensate for a desired level of ease and expected fabric shrinkage, based upon the type of fabric used to create the selected garment (see column 7 lines 29-32).

As per claim 24 wherein said statistical analysis [statistical methodology] comprises cross-validation [validate], the Ramsey et al. reference discloses the model can also use some of the reported characteristics to validate other reported dimensions or to catch occasional reporting errors (see column 5 lines 4-6).

As per claim 25 wherein said statistical analysis [statistical methodology] comprises principal components multiple linear regression [regression analysis], the Ramsey et al. reference discloses additional rules, based on regression analysis, can be applied which use the shoe size as a factor in predicting dimensions which the customer typically does not know (see column 5 lines 62-65).

As per claim 32 wherein said set of article dimensions [garment dimensions] comprises one or more dimensions [dimensions] selected from the group consisting of garment waist [predicted waist], seat-waist differential [predicted hip differential], garment seat [predicted seat], seat shape, garment inseam, and bottom opening; the Ramsey et al. reference discloses applying these calculated values, along with the self-reported dimensions, the critical garment dimensions are predicted using the preferred model (see column 7 lines 6-14).

The Ramsey et al. reference does not expressly disclose first and second mathematical models.

However, it would have been logically to one of ordinary skill in the art to modify the preferred model of the controller taught by the Ramsey et al. reference so that there were two mathematical models, one to calculate critical data and the other to calculate pattern data.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the preferred model of the controller taught by the Ramsey et al. reference to illustrate the various software components necessary to calculate both critical dimensions and pattern data.

One of ordinary skill in the art would have been motivated to modify the preferred model of the controller as two models to facilitate updating/upgrading algorithms necessary to calculate critical dimensions and pattern data.

15. Claims 33, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,353,770 to Ramsey et al.

As per claim 33 wherein said set of article dimensions [garment dimensions] comprises garment waist [predicted waist], seat-waist differential [predicted hip differential], garment seat [predicted seat], seat shape, garment inseam, and bottom opening; the Ramsey et al. reference discloses applying these calculated values, along with the self-reported dimensions, the critical garment dimensions are predicted using the preferred model (see column 7 lines 6-14).

As per claim 34 wherein garment waist [predicted waist] is computed from consumer-reported [self-reported] waist [waist], the Ramsey et al. reference discloses once these variables have been calculated, they can be used in the preferred model, along with the self-reported dimensions, to calculate the critical dimensions (see column 6 lines 35-57).

As per claim 36 wherein seat-waist differential [predicted hip differential] is computed from seat [predicted seat] and garment waist [predicted waist], see rejection of claim 34.

The Ramsey et al. reference does not expressly disclose a set of article dimensions [garment dimensions] comprises seat shape, garment inseam, and bottom opening.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the predicted garment dimensions taught by the Ramsey et al. reference with additional dimensions necessary to determine pattern data.

One of ordinary skill in the art would have been motivated to predict additional garment dimensions such as seat shape, garment inseam, and bottom opening to produce custom-made clothing which provides a superior fit since numerous critical dimensions are known.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is

703.306.5448. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703.308.3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cjb
2 May 2004


Anthony Knight
Supervisory Patent Examiner
Group 3600